



The image shows the 'User Registration' screen of the NutriGuide app. The header is teal with the 'NutriGuide' logo. Below the header, the title 'User Registration' is displayed in white on a dark blue background. The form consists of several input fields: 'Full Name*' with the value 'Subhasish Sarkar', 'Email*' with the value 'sarkarsubhasish25@gmail.com', 'Create Password*' with four dots, 'Confirm Password*' with four dots, 'Contact Number*' with the value '8597554515', and 'Organization*' with the value 'ICAR-IASRI'. A teal 'SIGN UP' button is at the bottom of the form. The footer is teal with the 'ICAR-IASRI' logo.



The image shows the login screen of the NutriGuide app. The header is teal with the 'NutriGuide' logo. Below the header, there are two input fields: 'Enter Email' with the value 'sarkarsubhasish25@gmail.com' and 'Enter Password' with four dots. A teal 'LOG IN' button is positioned below the password field. The footer is teal with the 'ICAR-IASRI' logo.



This screenshot shows the 'Register New Farmer' form in the NutriGuide app. The header is green with the 'NutriGuide' logo. Below the header, a black bar contains the text 'Register New Farmer'. The form fields are: Full Name, Age, Gender (with radio buttons for Male and Female), Educational Qualification, State, District, and Village. A green 'REGISTER' button is at the bottom of the form. The footer is green with the ICAR-IASRI logo and name.

NutriGuide

Register New Farmer

Full Name

Age

Gender ☒ Male ☐ Female

Educational Qualification

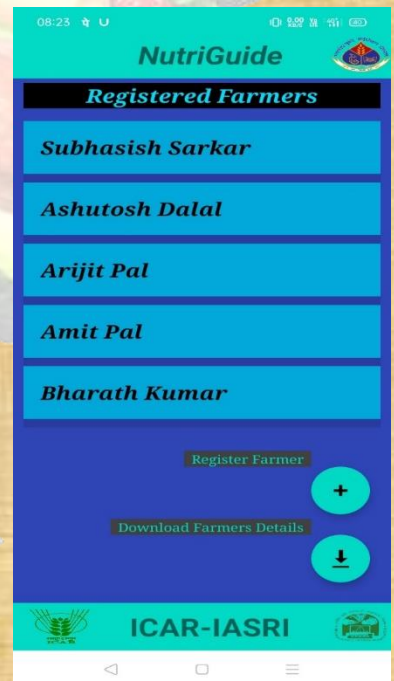
State

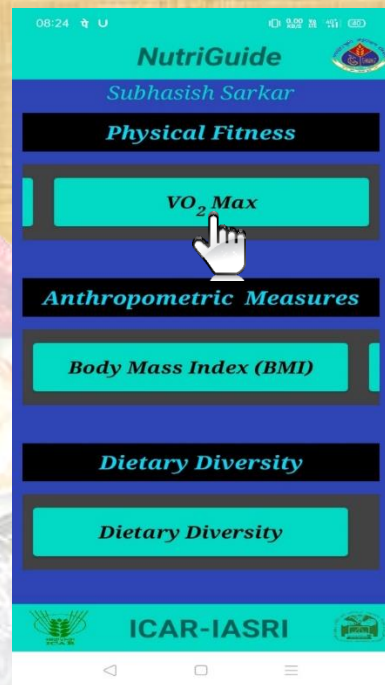
District

Village

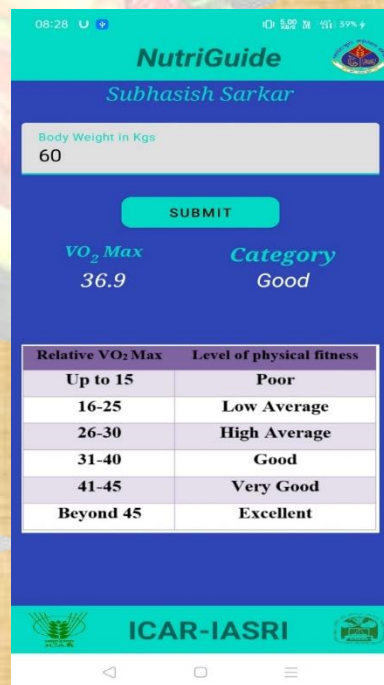
REGISTER

ICAR-IASRI



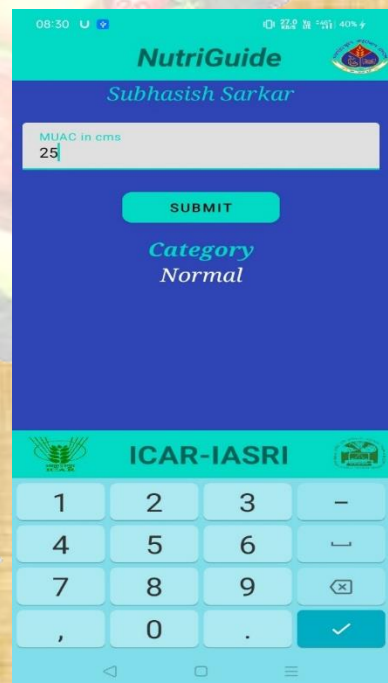
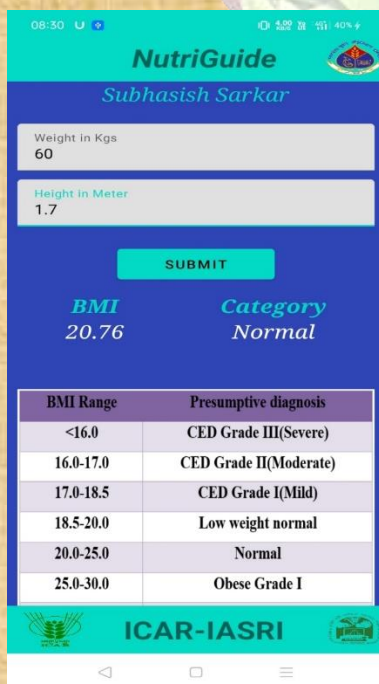


SWIPE LEFT



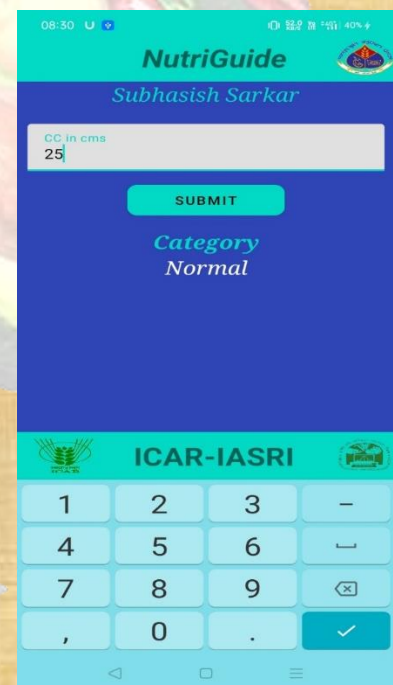
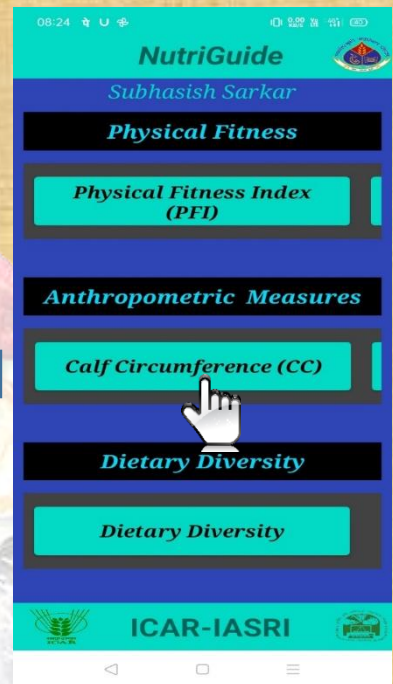


SWIPE LEFT





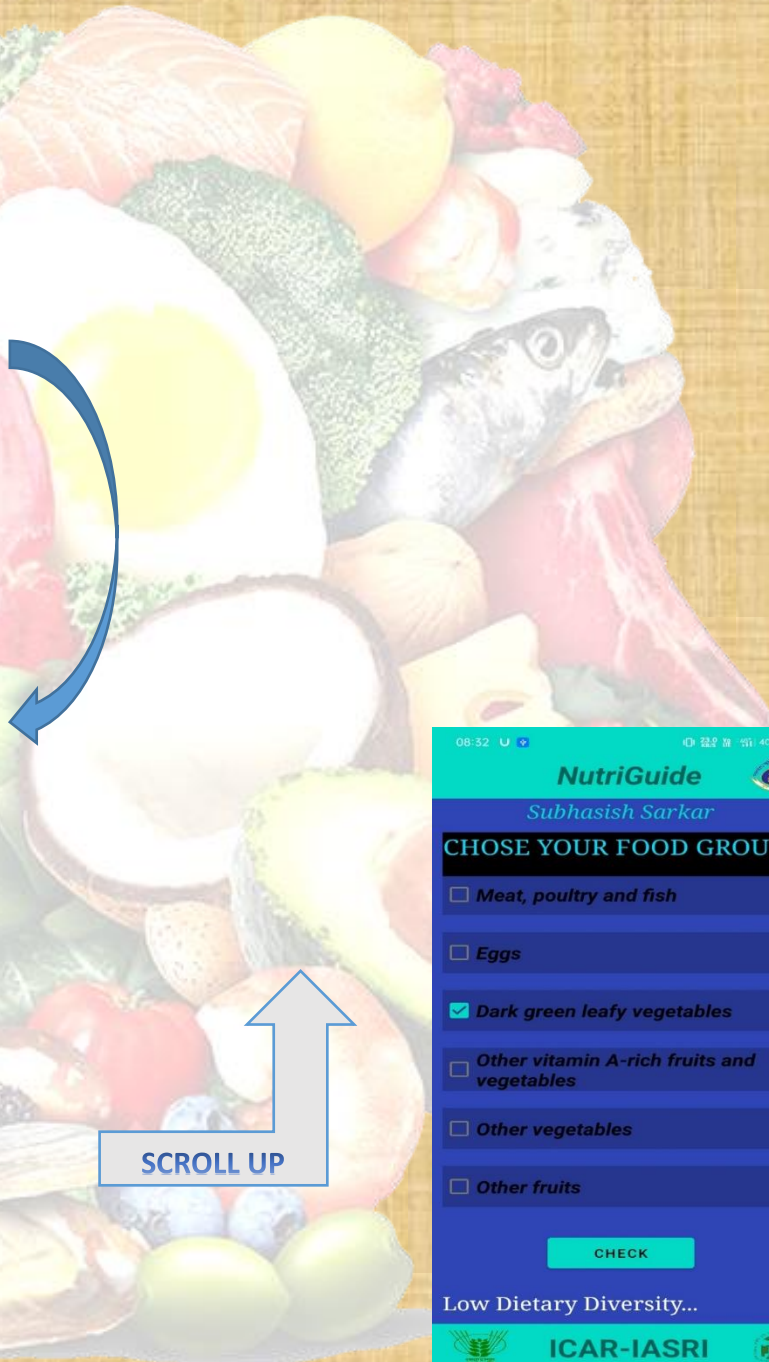
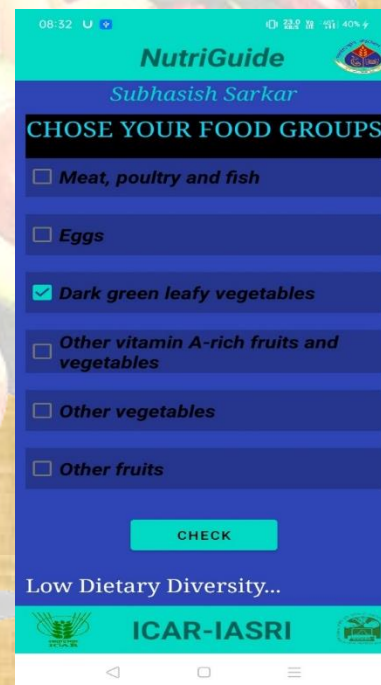
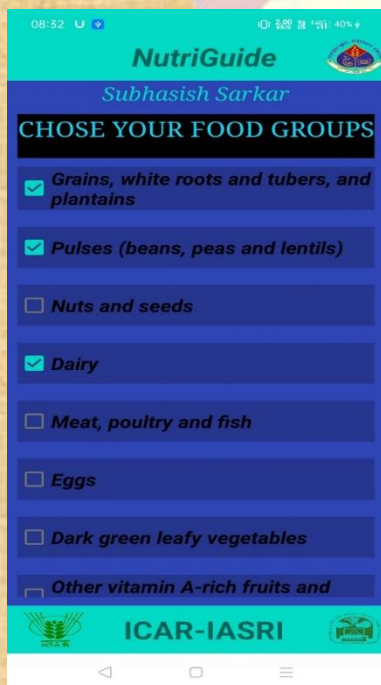
SWIPE LEFT





SWIPE LEFT





Physical Fitness Index

$$\text{Physical Fitness Index (PFI)} = \frac{\text{Duration of activity/s}}{\text{Sum of 1st, 2nd and 3rd min of recovery}} \times 100$$

Duration of Activity = 300 sec

PFI value	Level of physical fitness
Upto 80	Poor physical fitness
81-100	Low average fitness
101-115	High average fitness
116-135	Good fitness
136-150	Very good fitness
Beyond 150	Excellent fitness

VO₂ Max

$$\text{VO}_2 \text{ Max (l/min)} = 0.023 \times \text{Body weight (Kgs)} - 0.034 \times \text{Age(yrs)} + 1.65$$

$$\text{Relative VO}_2 \text{ Max (l/kg/min)} = \frac{\text{VO}_2 \text{ Max (l/min)}}{\text{Body Weight (kg)}} \times 1000$$

Relative VO ₂ Max	Level of physical fitness
Up to 15	Poor
16-25	Low Average
26-30	High Average
31-40	Good
41-45	Very Good
Beyond 45	Excellent

Body Mass Index

$$\text{BMI (kg/m}^2\text{)} = \frac{\text{Weight (kg)}}{\text{Height}^2\text{(m)}}$$

BMI Range	Presumptive diagnosis
<16.0	CED Grade III(Severe)
16.0-17.0	CED Grade II(Moderate)
17.0-18.5	CED Grade I(Mild)
18.5-20.0	Low weight normal
20.0-25.0	Normal
25.0-30.0	Obese Grade I
>30	Obese Grade II

Mid Upper Arm Circumference

MUAC tertiles	For men	For women
I (Under nutrition)	<22.9 cm	<22.8 cm
II (Normal)	22.9 – 25.6 cm	22.8 – 25.4 cm
III (Obese)	>=25.7 cm	>= 25.5 cm

Calf Circumference

CC tertiles	For men	For women
I (Under nutrition)	<26.0 cm	<25.0 cm
II (Normal)	26.0 – 29.9 cm	25.0 – 28.3 cm
III (Obese)	>=30.0 cm	>=28.4 cm

Skin Fold Parameters

age (years)	equations for males	equations for females
< 17	$D = 1.1533 - (0.0643 \times L)$	$D = 1.1369 - (0.0598 \times L)$
17-19	$D = 1.1620 - (0.0630 \times L)$	$D = 1.1549 - (0.0678 \times L)$
20-29	$D = 1.1631 - (0.0632 \times L)$	$D = 1.1599 - (0.0717 \times L)$
30-39	$D = 1.1422 - (0.0544 \times L)$	$D = 1.1423 - (0.0632 \times L)$
40 -49	$D = 1.1620 - (0.0700 \times L)$	$D = 1.1333 - (0.0612 \times L)$
> 50	$D = 1.1715 - (0.0779 \times L)$	$D = 1.1339 - (0.0645 \times L)$

D = Body Density, D = density; skinfold sum = biceps + triceps + subscapular + Suprailiac.

$L = \log_{10} (\text{Skinfold sum [mm]})$

Percent Body Fat = $(495 / \text{Body Density}) - 450$

Fat Mass (Kg) = $\text{Body weight (Kg)} \times (4.95/D - 4.5)$

Fat Free Mass (Kg) = $\text{Body weight (Kg)} - \text{Fat mass (Kg)}$

Dietary Diversity

Food stuffs
Grains, white roots and tubers, and plantains
Pulses (beans, peas and lentils)
Nuts and seeds
Dairy
Meat, poultry and fish
Eggs
Dark green leafy vegetables
Other vitamin A-rich fruits and vegetables
Other vegetables
Other fruits
Low dietary diversity <5 group
High dietary diversity ≥5 group